

retrieval of data, the process including an action tracking process and a plurality of analysis processes including situation appraisal, problem analysis, decision analysis, and potential side effect analysis processes, wherein each process employs a corresponding set of graphical user interface (GUI) process screens in eliciting data from and presenting data to a user, and wherein:

the situation appraisal process includes eliciting, storing, retrieving and presenting situation data, the situation data including (i) concerns about the situation and respective attributes of the concerns, the attributes of each concern including a relative priority and a process to be used for further analysis, and (ii) actions to be taken to address the concerns;

the problem analysis process includes eliciting, storing, retrieving and presenting problem data including an object of a problem in the situation and attributes of the object, the attributes including a deviation, possible causes, actions to be taken to confirm a true cause, a confirmed true cause, and actions to be taken to address the confirmed true cause;

the decision analysis process includes eliciting, storing, retrieving and presenting decision data, the decision data including (i) objectives of a decision regarding the situation and respective attributes of the objectives, the attributes of each objective including an indication of relative importance and at least one alternative, (ii) for each alternative a set of risks and respective probabilities and consequences, (iii) a final decision regarding alternatives to be pursued, and (iv) actions to be taken to implement the final decision;

the potential side effect analysis process includes eliciting, storing, and presenting potential side effect data, the side effect data including potential side effects of an action to be taken to address the situation and respective attributes of the potential side effects, the attributes of each potential side effect including a likely cause, actions to be taken to influence the likelihood of occurrence of the side effect, and actions to be taken in the event of occurrence of the side effect; and

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the action tracker process includes (i) retrieving and presenting actions from the other processes, and (ii) eliciting, storing, retrieving and presenting attributes of the actions, the attributes of each action including a responsible person, a deadline, and status.

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5. A process according to claim 4, wherein each analysis process further includes providing user performance support.

6. A process according to claim 5, wherein providing user performance support includes coaching the user by providing explanations and suggestions about the data being elicited upon an indication by the user that such coaching is desired.

7. A process according to claim 5, wherein providing user performance support includes providing examples to the user regarding the data being elicited upon an indication by the user that such providing of examples is desired.

8. A process according to claim 5, wherein providing user performance support includes providing pop-up definitions of

highlighted terms appearing on the GUI process screens in response to the user's selection thereof.

9. A process according to claim 7, wherein each analysis process further includes process checking to screen and filter data input by the user to ensure the completeness and correctness thereof.

10. A process according to claim 9, wherein the process checking includes misstated information checking to detect skipped steps, unsound data, and incomplete analysis.

11. A process according to claim 9, wherein the process checking includes common pitfall checking to advise the user of pitfalls that can be encountered as a result of impreciseness in the data entered by the user.

12. A process according to claim 9, wherein the process checking includes sharpening to successively refine entered data considered to be critical to proper analysis.

13. A process according to claim 9, wherein the process checking includes notifying the user upon detection of incomplete or incorrect data.

14. A process according to claim 13, wherein notifying the user comprises displaying a message to the user as the user attempts to advance to a succeeding GUI process screen.

15. A process according to claim 13, wherein notifying the user comprises displaying a message to the user immediately upon detection of the incomplete or incorrect data.

16. A process according to claim 9, wherein each analysis process further includes disabling the process checking at the request of the user.

17. A process according to claim 4, wherein each analysis process is usable in either a worksheet mode or an interactive mode, each mode being associated with a different set of the GUI process screens, the interactive mode GUI process screens containing substantially more explanatory text and transitioning more gradually than the worksheet mode GUI process screens.

18. A process according to claim 17, wherein the interactive mode GUI process screens include transition screens each summarizing a respective set of process steps to be performed in an immediately-following set of GUI process screens.

19. A process according to claim 17, wherein the interactive mode GUI process screens include summary screens each summarizing a respective set of process steps performed and the data entered in an immediately-preceding set of GUI process screens.

20. A process according to claim 17, further operative to toggle between worksheet mode and interactive mode upon user demand.

21. A process according to claim 4, wherein the attributes for each concern included in the situation data further include seriousness, urgency, and growth of the concern.

22. A process according to claim 4, wherein the attributes of each object included in the problem data further include a location and a date pertaining to a deviation thereof.

23. A process according to claim 4, wherein the attributes of each object included in the problem data further include "is" and "is not" descriptions.

24. A process according to claim 23, wherein the attributes of each object further include distinctions and changes.

25. A process according to claim 4, wherein the attributes of each object included in the problem data further include conditions and assumptions associated with the possible causes.

26. A process according to claim 4, wherein the indication of relative importance of each objective included in the decision data includes a classification as either a "must" or a "want" and a weight for each objective classified as a "want".

27. A process according to claim 4, wherein the attributes of at least one objective include multiple alternatives for pursuing the objective, and wherein the decision analysis process further includes ranking the alternatives according to desirability in pursuing the objective.

28. A process according to claim 4, wherein the side effect analysis process is a potential problem analysis process, the side effect data is problem data, the potential side effects are potential problems, the likelihood-influencing actions for each potential problem are preventative actions to reduce the

likelihood of occurrence, and the event-occurrence actions for each potential problem are contingent actions to diminish the effect of occurrence.

29. A process according to claim 4, wherein the side effect analysis process is a potential opportunity analysis process, the side effect data is opportunity data, the potential side effects are potential opportunities, the likelihood-influencing actions for each potential opportunity are promoting actions to increase the likelihood of occurrence, and the event-occurrence actions for each potential opportunity are capitalizing actions to enhance the effect of occurrence.

30. A process according to claim 4, wherein the action tracking process further includes eliciting, storing, retrieving, and presenting data from at least one of the other processes in addition to the associated actions.

31. A process according to claim 30, wherein the associated data includes concerns from the situation appraisal process.

32. A process according to claim 30, wherein the associated data includes objects from the problem analysis process.

33. A process according to claim 30, wherein the associated data includes decisions from the decision analysis process.

34. A process according to claim 30, wherein the associated data includes potential side effects from the potential side effect analysis process.

35. A process according to claim 4, wherein the knowledge base is adapted for structured storage and retrieval of keywords by the processes, and wherein each process further includes (i) assisting the user in identifying keywords in the elicited data, (ii) storing the identified keywords in the knowledge base, and (iii) executing keyword searches of the knowledge base upon the user's demand.

36. A process according to claim 4, wherein the GUI process screens contain cells capable of receiving user-entered data and capable of being associated with complex data objects stored in the knowledge base, and wherein each process further includes receiving such user-entered data into the cells and associating such complex data objects with the cells as directed by the user.

37. A process according to claim 4, wherein the GUI process screens contain cells capable of displaying user-entered data and graphical icons indicating cell-related status information.

38. A process according to claim 37, wherein the icons include an icon indicating that more data is required.

39. A process according to claim 37, wherein the icons include an icon indicating that a related data file exists.

40. A process according to claim 4, wherein each analysis process further includes a text editor component to enable the user to create notes and store the notes in association with the process.

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41. A process according to claim 4, further operative to generate reports containing selected portions of the data concerning the complex business situation.

42. A process according to claim 41, further operative to generate slide presentations containing selected portions of the data concerning the complex business situation.

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43. A process according to claim 4, further operative to generate electronic mail messages containing actions from one or more of the processes and to send the mail messages to one or more other users of the computer program.

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44. A process according to claim 43, further operative to automatically initiate the generating and sending of the electronic mail messages.

45. A process according to claim 43, further operative to send the electronic mail messages to recipients who are not users of the computer program.

46. A process according to claim 4, wherein the action tracker process further includes:

retrieving actions from analysis processes carried out for other complex business situations or by other users within an enterprise;

sorting all retrieved actions according to specified sort criteria; and

presenting the actions to the user in accordance with the results of the sorting.



47. A process according to claim 46, wherein the actions are sorted and presented by the deadline attribute.

48. A process according to claim 46, wherein the actions are sorted and presented by the responsible person attribute.

49. A process according to claim 46, wherein the actions are sorted and presented by the status attribute.

50. A process according to claim 4, wherein (i) the complex business situation is a specific instance of a general type of complex business situation about which a general approach to eliciting, processing, storing, and displaying pertinent information has previously been developed, (ii) the GUI process screens used by the analysis processes include pre-customized GUI process screens stored in the knowledge base and embodying the previously-developed approach to the general type of complex business situation, and (iii) the computer program includes program code operative to enable the user to select the pre-customized GUI process screens during the analysis processes to enable the user to follow the previously-developed approach in addressing the specific complex business situation.

51. A process according to claim 50, wherein the pre-customized GUI process screens include decision analysis GUI process screens having pre-selected objectives of the decision regarding the specific complex business situation.

52. A process according to claim 4, wherein each analysis process further includes querying the knowledge base to draw upon knowledge obtained from prior performances of the processes.

53. A process according to claim 52, wherein the querying includes retrieving previously-created queries from the knowledge base and querying the knowledge base therewith.

54. A process according to claim 4, further including  
(i) eliciting identifiers of participants in the analysis of the complex business situation, and (ii) storing the identifiers in the knowledge base in association with the data concerning the complex business situation to assist a user in identifying people having knowledge about the complex business situation.

55. A process according to claim 4, wherein multiple users are able to access the data in the knowledge base concerning the complex business situation.

56. A process according to claim 55, wherein a user is able to selectively incorporate data provided by other users into the knowledge base in association with the complex business situation.

57. A process according to claim 55, wherein (i) multiple users are able to copy data from the knowledge base for respective individual use, and (ii) the multiple users are able to store respective separate copies of the data in the knowledge base.

58. A computer-readable medium containing a computer program for eliciting, processing, storing, and displaying information concerning a complex business situation, the computer program comprising a plurality of program code modules operative to perform respective processes and program code for accessing a

knowledge base providing for structured storage and retrieval of data by the processes, the processes including an action tracking process and a plurality of analysis processes including situation appraisal, problem analysis, decision analysis, and potential side effect analysis processes, wherein each process employs a corresponding set of graphical user interface (GUI) process screens in eliciting data from and presenting data to a user, and wherein:

the situation appraisal process includes eliciting, storing, retrieving and presenting situation data, the situation data including (i) concerns about the situation and respective attributes of the concerns, the attributes of each concern including a relative priority and a process to be used for further analysis, and (ii) actions to be taken to address the concerns;

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the problem analysis process includes eliciting, storing, retrieving and presenting problem data including an object of a problem in the situation and attributes of the object, the attributes including a deviation, possible causes, actions to be taken to confirm a true cause, a confirmed true cause, and actions to be taken to address the confirmed true cause;

the decision analysis process includes eliciting, storing, retrieving and presenting decision data, the decision data including (i) objectives of a decision regarding the situation and respective attributes of the objectives, the attributes of each objective including an indication of relative importance and at least one alternative, (ii) for each alternative a set of risks and respective probabilities and consequences, (iii) a final

decision regarding alternatives to be pursued, and  
(iv) actions to be taken to implement the final decision;

the potential side effect analysis process includes eliciting, storing, and presenting potential side effect data, the side effect data including potential side effects of an action to be taken to address the situation and respective attributes of the potential side effects, the attributes of each potential side effect including a likely cause, actions to be taken to influence the likelihood of occurrence of the side effect, and actions to be taken in the event of occurrence of the side effect; and

the action tracker process includes (i) retrieving and presenting actions from the other processes, and (ii) eliciting, storing, retrieving and presenting attributes of the actions, the attributes of each action including a responsible person, a deadline, and status.

59. A computer-readable medium according to claim 58, wherein each process further includes providing user performance support.

60. A computer-readable medium according to claim 59, wherein providing user performance support includes coaching the user by providing explanations and suggestions about the data being elicited upon an indication by the user that such coaching is desired.

61. A computer-readable medium according to claim 59, wherein providing user performance support includes providing examples to the user regarding the data being elicited upon an indication by the user that such providing of examples is desired.

62. A computer-readable medium according to claim 59, wherein providing user performance support includes providing pop-up definitions of highlighted terms appearing on the GUI process screens in response to the user's selection thereof.

63. A computer-readable medium according to claim 58, wherein each analysis process further includes process checking to screen and filter data input by the user to ensure the completeness and correctness thereof.

64. A computer-readable medium according to claim 63, wherein the process checking includes misstated information checking to detect skipped steps, unsound data, and incomplete analysis.

65. A computer-readable medium according to claim 63, wherein the process checking includes common pitfall checking to advise the user of pitfalls that can be encountered as a result of impreciseness in the data entered by the user.

66. A computer-readable medium according to claim 63, wherein the process checking includes sharpening to successively refine entered data considered to be critical to proper analysis.

67. A computer-readable medium according to claim 63, wherein the process checking includes notifying the user upon detection of incomplete or incorrect data.

68. A computer-readable medium according to claim 67, wherein notifying the user comprises displaying a message to the user as the user attempts to advance to a succeeding GUI process screen.

69. A computer-readable medium according to claim 67, wherein notifying the user comprises displaying a message to the user immediately upon detection of the incomplete or incorrect data.

70. A computer-readable medium according to claim 63, wherein each analysis process further includes disabling the process checking at the request of the user.

71. A computer-readable medium according to claim 58, wherein each analysis process is usable in either a worksheet mode or an interactive mode, each mode being associated with a different set of the GUI process screens, the interactive mode GUI process screens containing substantially more explanatory text and transitioning more gradually than the worksheet mode GUI process screens.

72. A computer-readable medium according to claim 71, wherein the interactive mode GUI process screens include transition screens each summarizing a respective set of process steps to be performed in an immediately-following set of GUI process screens.

73. A computer-readable medium according to claim 71, wherein the interactive mode GUI process screens include summary screens each summarizing a respective set of process steps performed and the data entered in an immediately-preceding set of GUI process screens.

74. A computer-readable medium according to claim 71, wherein each process further includes toggling between worksheet mode and interactive mode upon user demand.

75. A computer-readable medium according to claim 58, wherein the attributes for each concern included in the situation data further include seriousness, urgency, and growth of the concern.

76. A computer-readable medium according to claim 58, wherein the attributes of each object included in the problem data further include a location and a date pertaining to a deviation thereof.

77. A computer-readable medium according to claim 58, wherein the attributes of each object included in the problem data further include "is" and "is not" descriptions.

78. A computer-readable medium according to claim 77, wherein the attributes of each object further include distinctions and changes.

79. A computer-readable medium according to claim 58, wherein the attributes of each object included in the problem data further include conditions and assumptions associated with the possible causes.

80. A computer-readable medium according to claim 58, wherein the indication of relative importance of each objective included in the decision data includes a classification as either a "must" or a "want" and a weight for each objective classified as a "want".

81. A computer-readable medium according to claim 58, wherein the attributes of at least one objective include multiple alternatives for pursuing the objective, and wherein the

decision analysis process further includes ranking the alternatives according to desirability in pursuing the objective.

82. A computer-readable medium according to claim 58, wherein the side effect analysis process is a potential problem analysis process, the side effect data is problem data, the potential side effects are potential problems, the likelihood-influencing actions for each potential problem are preventative actions to reduce the likelihood of occurrence, and the event-occurrence actions for each potential problem are contingent actions to diminish the effect of occurrence.

83. A computer-readable medium according to claim 58, wherein the side effect analysis process is a potential opportunity analysis process, the side effect data is opportunity data, the potential side effects are potential opportunities, the likelihood-influencing actions for each potential opportunity are promoting actions to increase the likelihood of occurrence, and the event-occurrence actions for each potential opportunity are capitalizing actions to enhance the effect of occurrence.

84. A computer-readable medium according to claim 58, wherein the action tracking process further includes eliciting, storing, retrieving, and presenting data from at least one of the other processes in addition to the associated actions.

85. A computer-readable medium according to claim 84, wherein the associated data includes concerns from the situation appraisal process.



86. A computer-readable medium according to claim 84, wherein the associated data includes objects from the problem analysis process.

87. A computer-readable medium according to claim 84, wherein the associated data includes decisions from the decision analysis process.

88. A computer-readable medium according to claim 84, wherein the associated data includes potential side effects from the potential side effect analysis process.

89. A computer-readable medium according to claim 58, wherein the knowledge base is adapted for structured storage and retrieval of keywords by the processes, and wherein each process further includes (i) assisting the user in identifying keywords in the elicited data, (ii) storing the identified keywords in the knowledge base, and (iii) executing keyword searches of the knowledge base upon the user's demand.

90. A computer-readable medium according to claim 58, wherein the GUI process screens contain cells capable of receiving user-entered data and capable of being associated with complex data objects stored in the knowledge base, and wherein each process further includes receiving such user-entered data into the cells and associating such complex data objects with the cells as directed by the user.

91. A computer-readable medium according to claim 58, wherein the GUI process screens contain cells capable of displaying

user-entered data and graphical icons indicating cell-related status information.

92. A computer-readable medium according to claim 91, wherein the icons include an icon indicating that more data is required.

93. A computer-readable medium according to claim 91, wherein the icons include an icon indicating that a related data file exists.

94. A computer-readable medium according to claim 58, wherein each process further includes a text editor component to enable the user to create notes and store the notes in association with the process.

95. A computer-readable medium according to claim 58, wherein the computer program further comprises a report writer program code module operative to perform a report writer process, the report writer process including generating reports containing selected portions of the data concerning the complex business situation.

96. A computer-readable medium according to claim 95, wherein the computer program further comprises code operative to generate slide presentations containing selected portions of the data concerning the complex business situation.

97. A computer-readable medium according to claim 58, wherein the computer program further comprises electronic mail program code operative to generate electronic mail messages containing actions from one or more of the processes and to send the mail messages to one or more other users of the computer program.

98. A computer-readable medium according to claim 97, wherein the electronic mail program code is further operative to automatically initiate the generating and sending of the electronic mail messages.

99. A computer-readable medium according to claim 97, wherein the electronic mail program code is further operative to send the electronic mail messages to recipients who are not users of the computer program.

100. A computer-readable medium according to claim 58, wherein the action tracker process further includes:

retrieving actions from analysis processes carried out for other complex business situations or by other users within an enterprise;

sorting all retrieved actions according to specified sort criteria; and

presenting the actions to the user in accordance with the results of the sorting.

101. A computer-readable medium according to claim 100, wherein the actions are sorted and presented by the deadline attribute.

102. A computer-readable medium according to claim 100, wherein the actions are sorted and presented by the responsible person attribute.

103. A computer-readable medium according to claim 100, wherein the actions are sorted and presented by the status attribute.

104. A computer-readable medium according to claim 58, wherein (i) the complex business situation is a specific instance of a general type of complex business situation about which a general approach to eliciting, processing, storing, and displaying pertinent information has previously been developed, (ii) the GUI process screens used by the analysis processes include pre-customized GUI process screens stored in the knowledge base and embodying the previously-developed approach to the general type of complex business situation, and (iii) the computer program includes program code operative to enable the user to select the pre-customized GUI process screens during the analysis processes to enable the user to follow the previously-developed approach in addressing the specific complex business situation.

31 105. A computer-readable medium according to claim 104, wherein the pre-customized GUI process screens include decision analysis GUI process screens having pre-selected objectives of the decision regarding the specific complex business situation.

106. A computer-readable medium according to claim 58, wherein each analysis process further includes querying the knowledge base to draw upon knowledge obtained from prior performances of the processes.

107. A computer-readable medium according to claim 106, wherein the querying includes retrieving previously-created queries from the knowledge base and querying the knowledge base therewith.

108. A computer-readable medium according to claim 58, wherein the computer program contains program code operative to (i) elicit identifiers of participants in the analysis of the complex

business situation, and (ii) store the identifiers in the knowledge base in association with the data concerning the complex business situation to assist a user in identifying people having knowledge about the complex business situation.

109. A computer-readable medium according to claim 58, wherein the computer program contains program code operative to enable multiple users to access the data in the knowledge base concerning the complex business situation.

110. A computer-readable medium according to claim 109, wherein the access-enabling program code is further operative to enable a user to selectively incorporate data provided by other users into the knowledge base in association with the complex business situation.

111. A computer-readable medium according to claim 109, wherein the access-enabling program code is further operative to (i) enable the multiple users to copy data from the knowledge base for respective individual use, and (ii) enable the multiple users to store respective separate copies of the data in the knowledge base.

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